# Technical datasheet
## PEI (Polyetherimide)

| Example of application |
|---|
| › electrical industry; medical technology; space industry; searcher (medical technology); insulator |

| Advantages | Disadvantages |
|---|---|
| › high stiffness also by high temperatures<br>› low smoke emission<br>› good resistance to energetic radiation | › low range of dimensions<br>› high price product |

| Basic information | Specification |
|---|---|
| Format | **round material:** on request<br>**sheets**: on request |

| Physical properties | Standard term/Specification* | Unit | Testing method |
|---|---|---|---|
| Density | 1.27 | g/cm$^3$ | ISO 1183 |
| Moisture ingress | 0.5 | % | DIN EN ISO 62 |

| Mechanical properties | Standard term/Specification* | Unit | Testing method |
|---|---|---|---|
| Tensile strength | 110 | MPa | DIN EN ISO 527 |
| Elongation at break | 12 | % | DIN EN ISO 527 |
| E-Module | 3.100 | MPa | DIN EN ISO 527 |
| Notch toughness | 4.0 | kJ/m$^2$ | ISO 179 |
| Rochwellhardness | 220 | MPa | DIN EN ISO 2039 |

| Thermal properties | Standard term/Specification* | Unit | Testing method |
|---|---|---|---|
| Thermal conductivity | 0.24 | W/(m·K) | DIN 52612 |
| Linear thermal expansion coefficient based on a fixed initial length | 0.45 | K$^{-1}$ · 10$^{-4}$ | DIN 53752 |
| | 0.90 | mm | At initial length of 1.000 mm and a temperature difference of 20 °C. |
| Max. operating temperature, long-term | 170 | °C | |
| Max. operating temperature, short-term | 210 | °C | |
| Min. operating temperature, long-term | - 50 | °C | |

| Electrical properties | Standard term/Specification* | Unit | Testing method |
|---|---|---|---|
| Resistance | 10$^{15}$ | Ω·cm | DIN IEC 60093 |
| Outer surface coefficient | 10$^{15}$ | Ω | DIN IEC 60093 |
| Puncture resistance | 30 | kV/mm | DIN EN 60243 |

| Legend |
|---|
| n.sp. = not specified |

Should you require binding and exact values, please ask for the appropriate factory certificate. This may incur additional costs. Please note that all specifications are standard values only, which are subject to production-related fluctuations.
*Higher specification on request.

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technical plastics

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